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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/024,568 | 12/21/2001 | Man Ho Na | K-0371 | 3651 |
| 34610 | 7590 | 02/24/2004 | EXAMINER | |
| FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153 | | | LANDAU, MATTHEW C | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2815 | |

DATE MAILED: 02/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|----------------------------------|--|
| Office Action Summary | Application No. 10/024,568 | Applicant(s) NA ET AL. | |
| | Examiner Matthew Landau | Art Unit 2815 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on June 3, 2003 have been approved. The drawings were received on November 14, 2003. These drawings are disapproved because the sheet marked "REPLACEMENT SHEET" does not reflect the changes shown in the sheet marked "ANNOTATED SHEET SHOWING CHANGES".

A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Claim Objections

In regards to claim 16, the limitation "beams of lights" should be replaced with "beams of light[s]".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2815

In regards to claims 11, the limitation “wherein each lens cell of the first fly eye lens includes a micro-lens, wherein the first fly eye lens has a plurality of lens cells each with a center point of the micro-lens shifted relative to a center point of the lens cell” renders the claim indefinite. It appears Applicant is attempting to claim a lens within a lens. However, there is nothing in the disclosure of the instant application to support this claimed feature and it is unclear how this would be accomplished. It is suggested Applicant amend the claims in a manner similar to the following: “wherein each lens cell of the first fly eye lens is [includes] a micro-lens, wherein the first fly eye lens has a plurality of lens cells each with an optical axis offset [a center point of the micro-lens shifted] relative to a center point of the lens cell...” Claims 12 and 16 have similar problems.

Further regarding claim 11, the limitation beginning “in order to render a central part...” renders the claim indefinite. It is unclear what is meant by “a central part of a length of the arc lamp correspond to the center points of the micro-lens...” Does Applicant intends to claim that light emitted from a central part of a length of the arc lamp corresponds to the center points of the micro-lenses? Furthermore, wouldn't the light hit all parts of the lens cells? Applicant has not disclosed how to generate distinct light beams that hit only specific parts of each lens cell. It is unclear how to generate these distinct light beams using an incoherent light source (such as the claimed arc lamp). For the purposes of this Office Action it is considered that the emitted light will be incident upon all portions of the lens cells, including the center points of the micro-lens.

Further regarding claim 16, the limitation “wherein a center point of said each first lens is located at a point a distance away from a center axis...” renders the claim indefinite. By definition, a center point is located in the center. Therefore, a center point must be located on

Art Unit: 2815

any center axis. It is suggested this claim be amended in a manner similar to the suggestions made regarding claim 11.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Iechika et al. (US Pat. 6,273,569, hereinafter Iechika).

In regards to claim 11, as best the examiner can ascertain the claimed invention, Figures 1 and 2(A) of Iechika disclose an illumination system comprising: a light source including an arc lamp 22 (metal halide lamp) emitting beams of light by arc light emission and a parabolic reflector 24 for making total reflection of the beams from the arc lamp to direct the beams in one direction; a first fly eye lens 40 including a matrix of lens cells which are for imaging the light beams incident from the light source on various points spaced apart from one another, wherein each lens cell of the first fly eye lens includes a micro-lens, wherein the first fly eye lens has a plurality of lens cells (cells of each 1st column in Figure 2(A)) each with a center point of the micro-lens (indicated by a “+” mark) shifted relative to a center point of the lens cell in order to

Art Unit: 2815

render a central part of a length of the arc lamp corresponds to the center points of the micro-lens of the plurality of lens cells, respectively; and a second fly eye lens 50 refracting the beams from the first fly eye lens into parallel beams.

In regards to claim 12, as best the examiner can ascertain the claimed invention, Figure 2(A) of Iechika discloses the lens cells (1st columns) of the first fly eye lens 40 have the center points of the micro-lens thereof arranged to be shifted towards a central axis 40y of the first fly eye lens.

In regards to claims 13, 14, and 15, as best the examiner can ascertain the claimed invention, Figure 2(A) of Iechika discloses the plurality of lens cells of the first fly eye lens 40 are arranged in a width direction, a height direction, and a radial direction of the central axis.

In regards to claim 16, as best the examiner can ascertain the claimed invention, Figures 1 and 2(A) disclose a first fly eye lens having a matrix of lens cells including first lens cells (1st columns) each with a first lens, and second lens cells (2nd column) each with a lens disposed in the first fly eye lens, for receiving beams of light from a light source in correspondence to the first lenses of the first lens cells and the second lenses of the second lens cells, respectively; and a second fly eye lens 50 having a matrix of lens cells for refracting the beams received from the first fly eye lens into parallel beams; wherein a center point of said each first lens is located at a point a distance away from a center axis (y-axis) of each corresponding first lens cell, and wherein a center point of said each second lens is substantially co-located at a center axis (x-axis) of each corresponding second lens cell.

Response to Arguments

Applicant's arguments filed November 14, 2003 have been fully considered but they are not persuasive.

Applicant has not pointed out which specific features of the claimed invention are believed to distinguish over Iechika. In this sense, Applicant's arguments are not understood. As indicated in the above rejection, as best the examiner can ascertain, the claims are fully anticipated by Iechika.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (571) 272-1731.

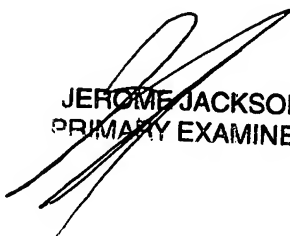
The examiner can normally be reached from 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Matthew C. Landau

Examiner

February 18, 2004


JEROME JACKSON
PRIMARY EXAMINER